Accessing Landsat Data Using Earth Explorer

Introduction

As an alternative to GloVis, **Earth Explorer (EE)** is a search interface where you can access aerial, mapping, elevation, and satellite data held in the USGS archives, including Landsat data products.

- Go to http://earthexplorer.usgs.gov/
- Before downloading data products, users must complete registration at http://ers.cr.usgs.gov/register/
- The EE process is divided into four sections: Search Criteria, Data Sets, Additional Criteria, and Results
- We will be downloading a Landsat 8 image: ID LC80430332015265LGN00 (see prerequisite)

Search Criteria

- Under Search Criteria click on the Path/Row tab
- Keep the Type as WRS2. Enter the following: Path 43 Row 33.
- Click on **Show.** You will see a coordinate appear on the map.
- Under Date Range, search for 09/22/2015 to 09/22/2015. This is the Julian Day (265) for the Landsat scene
- Click on **Data Sets** at the bottom to continue

Data Sets

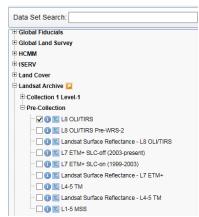
- Under Landsat Archive, click on Pre-Collection.
 Check the box for L8 OLI/TIRS
- Click on **Results** at the bottom to continue

Results

- In Results, you will see the Landsat scenes for your place and dates of interest
- For each scene, you can download several ways using the icon bar:



- o Click on the download icon for each or all of the scenes
- o In the pop-up window, click on **Download Level 1 GeoTiff Data Product**
- Click on the Bulk Download icon to send to the Item Basket. Click on Proceed to checkout.
- Click on the Order Scene icon to send to the Item Basket. Click on Proceed to checkout.



Unzipping the File

Once the file has downloaded, you will receive the file as a .tar.gz file. Please make sure you have the ability to unzip these files.

- For most Mac users, this will require using the Archive Utility application. This should be invoked automatically with OSX Yosemite
- For Windows users, you can use 7 zip (http://www.7-zip.org/). Here is a nice tutorial on how to download and install 7zip and how to extract files from a .tar file.

Once you have downloaded and unzipped the Landsat images, save the folder with your other files for this webinar. Take a look at the files. You will notice that they are named using the standard Landsat naming convention, and that there are separate files for each band (e.g. B1, B2, B3).